CLAIMS:

1. A method for manufacturing a single crystal semiconductor, in which a seed crystal is dipped into melt in a crucible and is pulled up to manufacture the single crystal semiconductor having an impurity added thereto, wherein,

in a process of pulling up the single crystal semiconductor, fluctuation in a pulling-up speed is controlled to reduce a variation in concentration of the impurity in the single crystal semiconductor.

2. A method for manufacturing a single crystal semiconductor, in which a seed crystal is dipped into melt in a crucible and is pulled up to manufacture the single crystal semiconductor having an impurity added thereto, wherein,

in a process of pulling up the single crystal semiconductor, a pulling-up speed fluctuation width in 10 seconds is adjusted to less than 0.025 mm/min.

3. The method for manufacturing the single crystal semiconductor of claim 1, wherein,

when the pulling-up speed is controlled such that a diameter of the single crystal semiconductor is adjusted to a desired diameter, a magnetic field of 1500 gauss or above is applied to the melt.

4. The method for manufacturing the single crystal semiconductor of claim 2, wherein,

when the pulling-up speed is controlled such that a diameter of the single crystal semiconductor is adjusted to a desired diameter, a magnetic field of 1500 gauss or above is applied to the melt.

5. The method for manufacturing the single crystal semiconductor of any one of

claims 1 to 4, wherein

the impurity to be added into the single crystal semiconductor is boron B or gallium Ga, and the impurity concentration is 8.0e17 atoms/cc or more.

6. The method for manufacturing the single crystal semiconductor of any one of claims 1 to 4, wherein

the impurity to be added into the single crystal semiconductor is phosphorus P, antimony Sb, or arsenic As, and the impurity concentration is 5.0e17 atoms/cc or more.